STRADA770

76 - 81GHz MMIC transceiver (4 RX / 3 TX) for automotive radar applications

Data brief

Features

- Bicmos9MW, 0.13-µm SiGe:C
- eWLB, 9x9 mm², 0.5 mm pitch
- Three-channel transmitter (single-ended output)
- Digitally-controlled output power
- Four-channel receiver (single-ended input)
- Variable gain function on RX channel
- 100 kHz/200kHz/1MHz/5MHz to 5/10 MHz programmable band pass filter
- Modularity configuration
- Configurable FMCW modulator
- ADC 12 bits @ 40 MHz or 50 MHz
- MIPI-D PHY 4 data lanes + 1 clock lane @480Mbps or 600 Mbps as maximum speed
- Compatible to two different Xtal: 50MHz and 40MHz
- VCO Divider output (/16)
- BIST structures
- Single supply voltage 3.3 V
- 4-pin SPI for chip configuration
- ESD protected

Description

STRADA770 is a single-chip transceiver for automotive radar applications. It is able to cover the frequency band from 76GHz to 81GHz to be compliant to all the radar applications. It is possible to set by SPI the narrow band (76GHz-77GHz) or the wide band (76GHz – 81GHz) application.

It consists of three single ended transmitters, four receivers with single-ended RF inputs and differential IF outputs, on-chip fully configurable FMCW modulator with 38÷40.5 GHz oscillator for radar signal generation and /16 frequency divider output. It embeds also analog front-end blocks including VGA and IF filters in front of 12bit ADC converters.
1 Revision history

<table>
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<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
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<tr>
<td>19-Feb-2016</td>
<td>1</td>
<td>Initial release.</td>
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